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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,336	01/26/2004	Masataka Tamura	016910-0498	6946
22428	7590	01/19/2006	EXAMINER	
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			JOHNSON, JONATHAN J	
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/763,336

Applicant(s)

TAMURA ET AL.

Examiner

Jonathan Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5-10-04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/763,336.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1-26-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 14 been renumbered 13.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4-11, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Jones (6,060,686). Jones teaches irradiating a condensed laser beam generated by a laser source to a certain point of an underwater workpiece (Figure 2, item 18b and 12a); supplying gas to the certain point from a nozzle having a gas exit (Figure 2, Item 22a); the nozzle having an area surround the gas exit that extends to the surface of the workpiece for keeping the supplied gas between the nozzle and the workpiece (Column 3, Lines 25-40), a nozzle is formed as a disk

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having a gas exit at the center thereof (Figure 2, item 20c and Column 3, Lines 25-40); a welding wire supplied to a certain point (Column 4, Lines 50-65); where the welding wire axis is a wire tip disposed in the nozzle (figure 2, item 26d); where a bush prevents the reflected laser beam from entering the laser source (figure 2, item 20b); irradiating the workpiece at an angle to the workpiece (Figure 1, item 18b); adjusting a gap between the nozzle and the workpiece (Column 3, Lines 45-55).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones as applied to Claim 9 above, and further in view of Cruickshank et al. (3,632,955). Cruickshank et al. teach separating visible light by a dichroic mirror and inputting the separated visible light into an image sensor (Figure 10, items 66 and 67). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the laser of Jones to utilize the mirror and sensor in order to view the welding with complete operator safety (see Cruickshank et al. Column 5, Lines 30-60).

Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (6,060,686) as applied to claim 1 and 11 above, and further in view of Onuma et al. (5,938,954).

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Jones teaches irradiating a condensed laser beam generated by a laser source to a certain point of an underwater workpiece (Figure 2, item 18b and 12a); supplying gas to the certain point from a nozzle having a gas exit (Figure 2, Item 22a); the nozzle having an area surround the gas exit that extends to the surface of the workpiece for keeping the supplied gas between the nozzle and the workpiece (Column 3, Lines 25-40) and where the nozzle is formed as a disk having a gas exit at the center thereof having a flat surface area extending in a circumferential direction thereof and (Figure 2, item 20c and Column 3, Lines 25-40). Onuma et al. teach a nozzle having a circular groove and protrusions on the surface having rollers (Figure 14, items 50 and 44), where the diameter meets the claimed diameter (figure 8, item 50). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the laser of Jones to utilize the nozzle head in order to efficiently remove oxides from the surface of the workpiece (see Onuma et al. col. 15, lines 15-25).

Conclusion

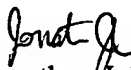
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 571-272-1177.

The examiner can normally be reached on M-Th 7:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jonathan Johnson
Primary Examiner
Art Unit 1725

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